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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VEILLARD, JACQUES	

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/939,661	GRAVANO ET AL.	
	Examiner	Art Unit	
	Jacques Veillard	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2005*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the applicant's communication filed on 3/25/2005.

2. Claims 1-25 are pending and presented for examination.

Response to Arguments

3. Applicant's arguments filed on 3/25/2005 with respect to claims 1-25 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 10, 11, 14-15, 20, 21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poznznski et al. (U. S. pat. No. 6,360,196) in view of Masuichi et al. (U. S. Pat. No. 6,321,189).

As per claims 1, 14 and 20, Poznanski et al. disclose "A method of retrieving information from a plurality of documents in a target language, (e.g., a second language) using a query in a source language, (e.g., a first language)" by providing a Multilanguage resource (See Poznanski et al. Title and the Abstract). In particular, Poznanski et al. disclose the claimed limitations of "receiving a search query that includes terms in a first language"(See Poznanski et al. Fig.2, and col.5, lines 28-30); "determining possible translations of the terms of the search query into a

second language" by proving a Multilanguage glosser (See Poznanski et al. col.1, lines 33-36, Fig. 1 element 8, Fig.2, element 12, col.4, lines 64-67, and col.5, lines 30-34); (See Poznanski et al. col.2, line 66 through col.3, line 15, and lines 29-50).

It is noted, however, Poznanski et al. did not specifically disclose the claimed feature of "locating documents in the first language that contain references that match the terms of the search query and identify documents in the second language" and "disambiguating among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query" as claimed. On the other hand, Masuichi et al. achieved this claimed limitation by providing a cross-lingual queries retrieval system and method that utilizes stored pair data in a vector space model to process (See Masuichi et al. title and abstract), wherein documents in the first language that contain references that match the terms of the search query and identify documents in the second language have been located (See Masuichi et al. Figs. 3 and 4, col.11, lines 38-55) and "disambiguating among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query" by providing an algorithm and a morphology analysis to obtain the disambiguation of words or sentences (See Masuichi et al. Fig.5, col.11, line 56 through col.13, line 8, and col.14, lines 19-56).

Poznanski et al. and Masuichi et al. are combinable because they are from same field of endeavor and trying to solve similar problem "Translation of queries in first language into a second language." At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Poznanski et al. by incorporating the algorithm and morphology analysis mechanism taught by Masuichi et al. The motivation for doing so would

have been to allow the system of Poznanski et al. to disambiguate the terms of the search among the possible translations more quickly and efficiently by divide the received queries fo the first language into phrases and /or words of each other by a syntax analysis to obtain similar sentences based on each of the phrases or words into the second language (See Masuichi et al. col.14, lines 19-46).

As per claims 10, 15, and 23, the claims have substantially the same limitations as claims 1, 14, and 20. These limitations have been already addressed in the rejection of these mentioned claims. Therefore, they are rejected on similar grounds corresponding to the arguments given for the rejected claims 1, 14, and 20 above.

As per claim 2, most of the limitations of this claim have been noted in the rejection of claim 1 above. In addition, the combination of Poznanski et al. and Masuichi et al., as modified, discloses the claimed limitations of "wherein the receiving a search query includes: presenting a graphical user interface to a user and receiving the terms of the search query in the first language from the user via the graphical user interface"(See Masuichi et al. Fig.2, and col.10, lines 34-56).

As per claims 3 and 4, most of the limitations of these claims have been noted in the rejection of claim 1 above. In addition, the combination of Poznanski et al. and Masuichi et al., as modified, discloses the claimed limitations of "wherein the determining possible translations include: using a dictionary to identify the possible translations of the terms into the second language, which includes one or more bilingual machine-readable dictionaries by providing a

translator which is primarily incorporated bilingual machine-readable dictionaries" (See Poznanski et al. col.1, lines 30-33, col.6, lines 29-38, and col.9, lines 49-55).

As per claim 5, most of the limitations of this claim have been noted in the rejection of claim 1 above. In addition, the combination of Poznanski et al. and Masuichi et al., as modified, discloses the claimed limitations of "wherein the locating documents in the first language includes: performing a search of a database of documents using the search query, and identifying one or more of the documents in the database, each of the one or more documents containing at least one reference that matches the search query and identifies a document in the second language" (See Masuichi et al. Abstract, Figs. 3 and 4, col.11, lines 38-55).

As per claim 11, Poznanski et al. disclose "A method of retrieving information from a plurality of documents in a target language, (e.g., a second language) using a query in a source language, (e.g., a first language)" by providing a Multilanguage resource (See Poznanski et al. Title and the Abstract). In particular, Poznanski et al. disclose the claimed limitations of "a search engine configured to: receive a search query that includes terms in a first language (See Poznanski et al. Fig.2, and col.5, lines 28-30); and a query translation engine (See Poznanski et al. Fig.1 element 8, Fig.2 element 12) configured to: receive the search query, determine possible translations of the terms of the search query into the second language (See Poznanski et al. col.1, lines 33-36, Fig. 1 element 8, Fig.2, element 12, col.4, lines 64-67, and col.5, lines 30-34).

It is noted, however, Poznanski et al. did not specifically disclose a database of documents in a plurality of languages to locate documents in the first language that contain

references that match the terms of the search query and identify documents in a second and disambiguate among the possible translations of the terms of the search query using the identified documents in the second language to identify one of the possible translations as a likely translation of the search query. On the other hand, Masuichi et al. achieved this claimed limitation by providing a cross-lingual queries retrieval system and method that utilizes stored pair data in a vector space model to process (See Masuichi et al. title and abstract), wherein documents in the first language that contain references that match the terms of the search query and identify documents in the second language have been located (See Masuichi et al. Figs. 3 and 4, col.11, lines 38-55) and "disambiguating among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query" by providing an algorithm and a morphology analysis to obtain the disambiguation of words or sentences (See Masuichi et al. Fig.5, col.11, line 56 through col.13, line 8, and col.14, lines 19-56).

Poznanski et al. and Masuichi et al. are combinable because they are from same field of endeavor and trying to solve similar problem "Translation of queries in first language into a second language." At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Poznanski et al. by incorporating the algorithm and morphology analysis mechanism taught by Masuichi et al. The motivation for doing so would have been to allow the system of Poznanski et al. to disambiguate the terms of the search among the possible translations more quickly and efficiently by divide the received queries fo the first language into phrases and /or words of each other by a syntax analysis to obtain similar

sentences based on each of the phrases or words into the second language (See Masuichi et al. col.14, lines 19-46).

As per claims 21 and 24, the claims have substantially the same limitations as claim 11. These limitations have been already addressed in the rejection of these mentioned claims. Therefore, they are rejected on similar grounds corresponding to the arguments given for the rejected claim 11 above.

6. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poznanski et al. (U. S. Pat No. 6,360,196) and Masuichi et al. (U. S. Pat. No. 6,321,189) in view of Chan et al. (U. S. Pat. No. 6,604,101).

As per claim 12, most of the limitations of this claim have been noted in the rejection of claim 1 above. It is noted, however, the combination of Poznanski et al. and Masuichi et al., as modified, does not disclose the claimed limitations of "wherein the database includes a plurality of documents distributed over a network." On the other hand, Chan et al. achieved this claimed feature by providing a method that dialectally standardized keywords or queries to more commonly known or used term in a database wherein the database includes a plurality of documents distributed over a network (See Chan et al. Fig.1 and corresponding text).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Poznanski et al. by incorporating the dialect standardized keywords or query to a more commonly known or used tenn mechanism taught by

Chan et al. The motivation being to have enhanced the system of Poznanski et al. by allows it to disnmbiguate the terms of the search among the possible translations more efficiently.

As per claim 13, most of the limitations of this claim have been noted in the rejection of claim 1 above. In addition, the combination of Poznanski et al. Masuichi et al., and Chan et al., as modified, discloses the claimed limitations of "wherein the network is the Internet" (See Chan et al. Fig.1 and component 114).

7. Claim 6-9, 16-19, 22 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Poznanski et al. (U. S. Pat No. 6,360,196) and Masuichi et al. (U. S. Pat. No. 6,604,101) in view of Liddy et al. (U. S. Pat. No. 6,006,221).

As per claims 18 and 19, Poznanski et al. disclose "A method of retrieving information from a plurality of documents in a target language, (e.g., a second language) using a query in a source language, (e.g., a first language)" by providing a Multilanguage resource (See Poznanski et al. Title and the Abstract). In particular, Poznanski et al. disclose the claimed limitations of "receiving a search query that includes terms in a first language"(See Poznanski et al. Fig.2, and col.5, lines 28-30); " performing a search of document in the first language to locate one or more of the first language documents in that contain anchor text that matches the search query and identify one or more documents in the second language" (See Poznanski et al. col.2, line 66 through col.3, line 15, and lines 29-50); "determining possible translations of the terms of the search query into a second language" by proving a Multilanguage glosser (See Poznanski et al. col.1, lines 33-36, Fig. 1 element 8, Fig.2, element 12, col.4, lines 64-67, and col.5, lines 30-34);

"identifying one of the possible translations as a correct translation of the search query based on the disambiguation; and performing a search of second language documents using the correct translation of the search query" (See Poznanski et al. col.4, lines 16-27, and col.8, lines 16-67).

It is noted, however, Poznanski et al. did not specifically disclose the claimed feature of "for disambiguation among the possible translations of the terms of the search query" as claimed. On the other hand, Masuichi et al. achieved this claimed limitation by providing a cross-lingual queries retrieval system and method that utilizes stored pair data in a vector space model to process (See Masuichi et al. title and abstract), and "disambiguating among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query" by providing an algorithm and a morphology analysis to obtain the disambiguation of words or sentences (See Masuichi et al. Fig.5, col.11, line 56 through col.13, line 8, and col.14, lines 19-56).

Poznanski et al. and Masuichi et al. are combinable because they are from same field of endeavor and trying to solve similar problem "Translation of queries in first language into a second language." At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Poznanski et al. by incorporating the algorithm and morphology analysis mechanism taught by Masuichi et al. The motivation for doing so would have been to allow the system of Poznanski et al. to disambiguate the terms of the search among the possible translations more quickly and efficiently by divide the received queries fo the first language into phrases and /or words of each other by a syntax analysis to obtain similar sentences based on each of the phrases or words into the second language (See Masuichi et al. col.14, lines 19-46).

The combination of Poznanski et al. and Masuichi et al. did not specifically discloses the claimed feature "using the identified second language documents as parallel corpora" .

However, Liddy teaches a multilingual document retrieval including a natural language query, in a desired one of a plurality of supported languages (See the abstract) including using the identified second language documents as parallel corpora (See col.13, lines 4-17); (See the abstract lines 1-6, col.3, line 55 through col.4, line 13 and col.15, line 64 through col.16, line 10).

It would have been obvious to a person of ordinary skill in the art at the time the Applicant's invention was made to modify the combination teachings of Poznanski et al. and Masuichi et al. with the teachings of Liddy to include a corpus document with a multilingual retrieval system in order for user to retrieve documents from a database that includes documents in at least one other language of the plurality of supported languages without any knowledge of other language.

As per claims 22 and 25, the claims have substantially the same limitations as claims 18 and 19. These limitations have been already addressed in the rejection of these mentioned claims. Therefore, they are rejected on similar ground corresponding to the arguments given for the rejected claims 18 and 19 above.

As per claims 6 and 7, the combination of Poznanski et al., Masuichi et al. and Liddy et al, as modified, discloses the claimed limitations "wherein the references include anchor text and text surrounding the anchor(See Liddy's col.11, line 65 through col.12, line 10, and lines 51-62).

As per claims 16 and 17, the claims have substantially the same limitations as claims 6 and 7. These limitations have been already addressed in the rejection of these mentioned claims. Therefore, they are rejected on similar ground corresponding to the arguments given for the rejected claims 6 and 7 above.

As per claim 8, the combination Liddy, as modified, teaches the claimed limitation, wherein the disambiguating among the possible translations includes: using text of the identified documents as parallel corpora, and using a parallel corpora disambiguation technique to differentiate among the possible translations of the terms of the search query (See Liddy et al. col.13, lines 11-17).

As per claim 9, the combination of Poznanski et al. Masuichi et al. and Liddy et al., as modified, discloses the claimed limitations "wherein the disambiguating among the possible translations includes: determining a frequency of co-occurrence of the possible translations in the identified documents" (See Liddy et al. col.6, lines 48-62), and designating one of the possible translations with a highest frequency of co-occurrence as a correct translation (See Liddy et al. col.13, lines 4-11).

Other Prior Art Made Of Record

8.	Engel Alan	U. S. Pat. No. 6,490,548,
	Liddy et al.	U. S. Pat. No. 5,873,056.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques Veillard whose telephone number is (571) 272-4086. The examiner can normally be reached on Mon. to Fri. from 9 AM to 4:30 PM, alt. Fri. off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272- 4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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CHARLES RONES
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June 8, 2005